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MEMORANDUM OF UNDERSTANDING:

TRAFFIC AND AIR QUALITY MITIGATION

FOR THE

CENTRAL ARTERY/THIRD HARBOR TUNNEL PROJECT

1. Parties. The parties to this agreement are the Executive Office of Transportation and Construction of the Commonwealth of Massachusetts ("EOTC"), the Massachusetts Department of Public Works ("MDPW"), and the Conservation Law Foundation ("CLF")(hereafter collectively referred to as "the parties").

2. Need for Mitigation Measures. The parties agree that:

The Central Artery/Third Harbor Tunnel Project ("the Artery/Tunnel Project") can play a major role in producing significant long-term improvements in traffic congestion and air quality;

In order to ensure these improvements in conditions, the parties acknowledge the desirability of implementing new and expanded measures to provide transportation by alternative modes and to increase the efficiency of use of the highway system that includes the Central Artery and harbor tunnels;

The 1990 amendments to the Clean Air Act impose major new requirements on Massachusetts, making it essential for the Commonwealth to position itself to meet those requirements in a manner that enhances both environmental quality and economic prosperity; and

The implementation of the measures referred to in the preceding paragraphs will contribute to the long-term success of the project under the range of conditions that may prevail in the year 2010 and thereafter.

3. Nature of Commitments in This Agreement. The commitments described in this agreement should be incorporated into the certificate of the Secretary of Environmental Affairs on the final supplemental environmental impact report ("FSEIR") for the Artery/Tunnel Project and into the record of decision for the project issued by the Federal Highway Administration ("FHWA"). The parties agree to take all steps appropriate to their respective offices, and to use their respective authorities and means to the full extent necessary, in urging that the commitments be so incorporated.

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These commitments shall be incorporated in the Artery/Tunnel Project, implemented, monitored and enforced to at least the same extent as other mitigation commitments made in the environmental impact statement or report, the secretary's certificate or the record of decision for the Artery/Tunnel Project. They are intended to supplement, not to limit or substitute for, commitments made in the other documents just mentioned. The commitments described herein are intended by the parties to be fully binding and enforceable under any applicable law.

4. Parking Freezes. The MDPW has undertaken a sensitivity analysis of the traffic forecasts used to predict air quality impacts of the project. In that sensitivity analysis, several critical input variables were tested to learn their effect on traffic volumes. The results of this analysis indicate that of all the public policy interventions examined, a parking control policy would be the most effective. A full parking freeze for Boston and Cambridge would lower regional trip ends by 135,000. The parties agree that parking policy represents one of the most important areas for improved environmental control and intervention. New or revised parking freezes that ensure high levels of service (or at least no further deterioration of service) and the attainment of air quality goals without increasing street or road capacity shall be put into effect for East Boston/Revere, South Boston, Downtown Boston and Cambridge and made part of the State Implementation Plan for Massachusetts under the Clean Air Act. The parties agree to take all steps appropriate to their respective offices, using their respective authorities and means to the full extent necessary, to attain these goals.

A. Each freeze shall impose a firm limit on the total number of parking spaces in the geographical area to which the freeze applies. Each such limit shall be calculated to ensure the attainment of level of service and air quality objectives. In addition, it may be appropriate for some or all freezes to require holders of permits for new or existing spaces to establish aggressive employer-based transportation demand management programs, to provide preferences -- through set-aside, pricing, and other requirements and incentives -- for high-occupancy vehicle ("HOV") parking, and/or to provide appropriate preferences for short-term (non-commuter) parking. It may also be appropriate to issue permits on the basis of use-specific ratios of allowable parking spaces per 1000 square feet of space developed, and to vary the ratios used within different districts in a freeze area according to the districts' proximity to mass transit services.

B. The Metropolitan Planning Organization ("MPO") shall submit, in each of its parking freeze submissions to DEP, language which would require that the review and approval of additions to or changes in facilities providing parking spaces in each of the freeze areas shall be administered in accordance with a plan to be submitted to the Governor which sets forth the procedures by which the permitting of facilities in the area shall occur. In the case of the parking freezes implemented by the City of Boston, for example, these permitting procedures would be set forth as a proposed text of amendments to the current BAPCC "Procedures and Criteria for the Issuance of Parking Freeze Permits." Such procedures and criteria are subject to an open public hearing process conducted by DEP. The parties agree to take all steps appropriate to their respective offices, using their respective authorities and means to the full extent necessary, to ensure that they are effective in meeting the intent of the parking freeze.

C. Given that the MPO has, at the recommendation of the Secretary of Transportation and Construction ("Secretary"), proposed a South Boston parking freeze, the Secretary shall transmit the freeze to DEP within fourteen days from the date of this agreement. The parties shall in the ensuing months take all steps necessary to see that the South Boston parking freeze is adopted, and that the Cambridge and Downtown Boston freezes are revised, as quickly as possible in accordance with the previous paragraphs. The parties specifically agree that such revisions shall apply to all off-street spaces, and shall address the current problems created by exemption of employee spaces from the freeze concept.

5. Mass Transit. The use of mass transit by commuters, airport travelers and others in the Boston metropolitan area shall be maximized. EOTC shall complete and provide to the other parties no later than December 31, 1991, an initial study of transit improvement strategies in addition to those called for by this agreement and the FSEIR, and shall make every effort to reach a consensus with the other parties as to the conclusions and implementation of that study by March 31, 1992, at which time it should be addressed in a revised Program for Mass Transportation ("PMT"). The parties agree that all of the public transportation improvements discussed below, including rapid transit, commuter rail, bus, water shuttle and station and parking facility improvements will contribute to the success of the total transit plan. The parties also acknowledge that the implementation of other transit projects contained within the Artery/Tunnel Project, including the replacement of the Dewey Square Bus Station at South Station, the reconstruction of the

Airport Blue Line station, and the creation of the underground right of way for the South Boston Piers access transit project will contribute to the attainment of the Artery/Tunnel Project's environmental goals.

The parties recognize that implementation of most or all of the transit improvements addressed in this agreement is subject to public environmental review processes. If any planned improvement is found in the course of such a review process to have environmental impacts which render the project infeasible, EOTC shall develop and implement a substitute transit facility or service that will serve at least the same number of passengers in the same transportation corridor as the transit improvement contemplated by this agreement. In implementing transit improvements under this agreement, EOTC shall confer with the other parties on a quarterly basis in the manner described below.

EOTC shall also do the following.

A. All of the improvements listed in Appendix A to this agreement shall be completed. EOTC shall make every effort to complete each improvement by the last day of the calendar year stated as the year of completion in Appendix A. EOTC shall begin the operation of each new facility or service by the last day of the calendar year following the stated year of completion.

B. Although new circumferential transit facilities were not assumed in the FSEIS/R forecasts, EOTC shall determine whether and how to connect radial transit service corridors outside the central business district (provide one or more permanent circumferential transit facilities). On the basis of a feasibility study of various alternatives, EOTC shall complete and provide that study to the other parties no later than December 31, 1994, and shall make every effort to reach a consensus with the other parties as to whether and how to provide permanent circumferential transit facilities by September 30, 1995.

C. EOTC agrees to pursue with due diligence the program to attain three hour travel speeds for high speed rail between New York and Boston, as its highest inter-city transportation priority. Second, EOTC agrees to pursue high speed rail services along the inland route connecting Hartford, Springfield and Worcester to Boston. Third, EOTC agrees to work cooperatively with the States of Maine and New Hampshire to attain high speed rail service between Boston and Portland, Maine.

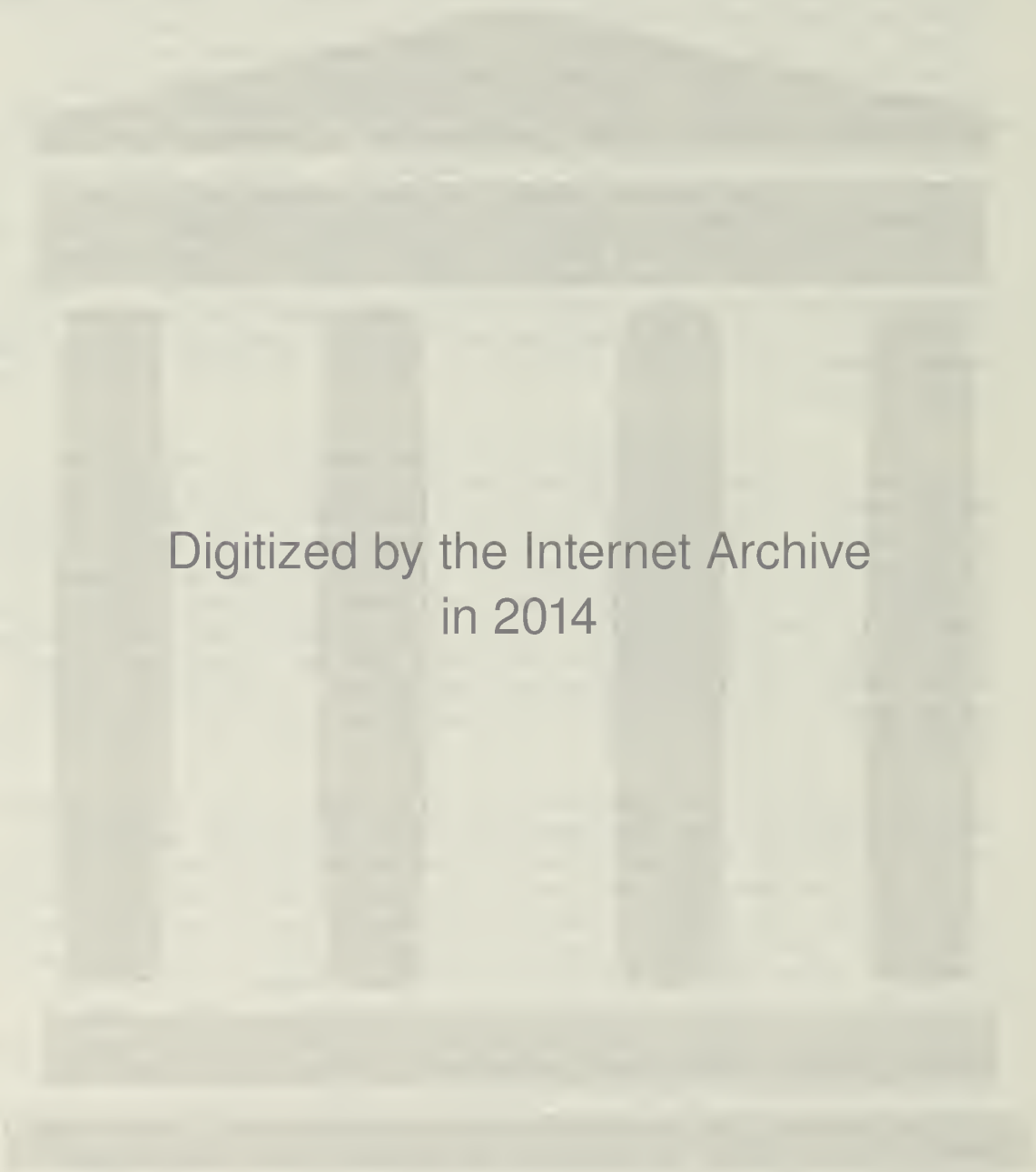
Fourth, EOTC agrees on the desirability of extending

Northeast Corridor service north of South Station, possibly on a new alignment. Toward that end, EOTC shall determine whether and how to provide a rail connection between South Station and Logan Airport on the basis of a feasibility study for such a connection. EOTC shall complete and provide that study to the other parties no later than December 31, 1991, and shall make every effort to reach a consensus with the other parties as to whether and how to provide such a connection by March 30, 1992. EOTC shall complete a preliminary study of the compatibility of planned construction work for the Artery/Tunnel Project with such a connection and provide that study to the other parties no later than February 28, 1991, and shall make every effort to carry out design and construction work for the Artery/Tunnel Project so as not to interfere with the development of a rail connection between South Station and Logan Airport.

D. Given the success of the Massport Braintree terminal project, and given the progress in establishing a multi-modal terminal in Natick, the Secretary shall make every effort to obtain from the Massachusetts Port Authority by June 30, 1991, commitments (1) to develop suburban "remote terminal" facilities designed to reduce automotive travel to Logan Airport, and (2) to expand HOV facilities and services within Logan Airport and to coordinate them with other HOV facilities and services, including those developed as part of or in connection with the Artery/Tunnel Project.

E. EOTC, in cooperation with MDPW, the Massachusetts Port Authority and the Massachusetts Turnpike Authority, shall complete and provide to the other parties by December 31, 1991, a feasibility study of the relocation of some of the existing Sumner Tunnel toll booths to a location along Route 1A, generally in the vicinity of the Airport Blue line station, that would allow for airport users to utilize separate toll booths from those approaching from other directions. Given the ability to differentiate subgroups of tunnel users, EOTC shall examine in that study the use of toll pricing to regulate trips to Logan Airport, acknowledging the needs of airport employees. EOTC shall make every effort to reach a consensus with the other parties as to how best to use toll pricing to regulate vehicle trips to the airport by March 31, 1992.

F. The parties agree that MBTA fares should be indexed so that they do not rise more rapidly than fuel, toll and other costs of automobile use, or than the rate of inflation, whichever rate of increase is lower. The parties



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shall make every effort to reach a written consensus by September 30, 1991, on a specific long-term means of accomplishing such indexing to the full extent possible under existing statutes.

G. EOTC shall complete and provide to the other parties no later than September 30, 1991, a feasibility study examining alternative means of providing a water shuttle service from Boston to the North Shore, which shall explore the special problems of commuter operations in open ocean waters and make recommendations concerning strategies to deal with this problem. EOTC shall make every effort to reach a consensus with the other parties as to how best to provide such service by December 31, 1991.

6. Radial Capacity. No expansion of the radial roadways to and from Boston shall be undertaken within the Route 128 radius. Capacity shall not be expanded in either direction through the addition of lanes on any of the radial roadways, although localized improvements necessary to increase safety or to enhance HOV access may be carried out. "Radial roadway" means a roadway whose major peak-hour function is to carry passenger and other vehicles to and from Boston. This commitment shall be incorporated in the State Implementation Plan for Massachusetts under the Clean Air Act. The parties agree to take all steps appropriate to other respective offices, using their respective authorities and means to the full extent necessary, to attain such incorporation.

7. Regulation Governing Roadway Tunnel Ventilation Systems. DEP has published in draft form a proposed regulation governing roadway tunnel ventilation systems in the Boston Metropolitan Air Pollution Control District. The parties shall make every effort to assist DEP in expediting the issuance of a final regulation in order to ensure the attainment and maintenance of the air quality goals of the Artery/Tunnel Project. The parties agree that all appropriate terms of this agreement, including but not limited to those pertaining to the triggering of expanded HOV measures, should be incorporated in any compliance plan that may be submitted for the Artery/Tunnel Project (see proposed 310 CMR 7.38(5)(November 1990)). All commitments in this agreement shall be implemented and enforceable whether or not the measures to be undertaken pursuant to those commitments are also required under the DEP regulation.

8. High-Occupancy Vehicle Facilities. The highest possible level of high-occupancy vehicle ("HOV") utilization shall be attained throughout the entire highway system that includes the Central Artery and harbor tunnels, to the full extent that individual HOV facilities and priority mechanisms

contribute to improved environmental quality and sound traffic management. Both commuters using highways to and from Boston and travelers, patrons and employees using highways to and from Logan Airport should utilize HOVs and mass transit. Conversely, the goal of the commitments made in this memorandum is to reduce to the maximum extent feasible single-occupancy vehicle travel by those two groups and others.

To that end, the parties agree that the actions described below shall be taken. The commitments outlined in this section shall be incorporated in the State Implementation Plan for Massachusetts under the Clean Air Act. The parties agree to take all steps appropriate to their respective offices, using their respective authorities and means to the full extent necessary, to attain such incorporation.

A. Interstate 93 ("I-93") North of the Southern Bank of the Charles River.

Southbound Direction. Prior to commencement of reconstruction of the Central Artery, from the area of the I-93 Charles River bridge, the existing southbound HOV lane shall be extended toward Route 128 to the northernmost point appropriate to maximize use of the lane, using appropriate lane demarcation mechanisms. This shall not be accomplished by the addition of a new lane or lanes to I-93. The Commonwealth will incorporate into the permanent design of the Charles River crossing an HOV lane extending down the exit ramp to Nashua Street, with a head of queue enforcement point at the ramp's intersection with Nashua Street, subject to the review and approval of the FHWA. EOTC and MDPW shall further study and implement additional HOV priority measures, as appropriate, such as metering systems or HOV lanes on ramps, for southbound traffic from the Charles River crossing to Route 128.

Northbound Direction. EOTC and MDPW shall implement appropriate HOV measures if and when such measures are triggered by traffic conditions in the manner described below. In the case of this highway segment, the parties expect a left-hand HOV lane, from the Charles River crossing to the northernmost point toward Route 128 appropriate to maximize use of the lane, to be an appropriate measure. Creation of such a lane shall not be accomplished by the addition of a new lane or lanes to I-93.

B. Southeast Expressway. EOTC and MDPW shall establish an HOV lane or lanes for north- and southbound traffic, from the Interstate 90/Interstate 93 interchange to at least a point immediately north of the Route 128-Route 3

interchange, and extending beyond to the southernmost point appropriate to maximize use of the lane or lanes, prior to May 31, 1993. EOTC shall establish such a lane or lanes sooner if triggered by traffic conditions in the manner described below. The best engineering mechanism to provide faster, more reliable, safe HOV flow shall be determined through a study which EOTC shall complete and provide to the other parties no later than June 30, 1991. The study shall examine relevant engineering, safety and environmental considerations. If an HOV lane or lanes is accomplished by the addition of a new lane or lanes to I-93 or Route 3, any such HOV lane shall remain as a permanent HOV lane and shall at no point be converted to use for general traffic.

C. Massachusetts Turnpike. The Secretary shall take all steps necessary to enhance and expand the Massachusetts Turnpike Authority programs supporting HOVs and to ensure the implementation of the following measures by the Massachusetts Turnpike Authority: a program of special HOV toll booths and full head-of-queue privileges, and wherever practical, specially demarcated lanes leading to those toll booths, at all appropriate turnpike interchanges; and the provision of electronic identification systems. In addition, the Secretary shall complete and provide to the other parties no later than June 30, 1992, a study, undertaken with participation of the Authority, to establish the best mechanism to improve the quality and reliability of HOV flow on the Turnpike between Route 128 and Boston. This study shall examine the feasibility of full-scale HOV lanes and other facilities and mechanisms on the Turnpike through Newton and Boston. Once the appropriate engineering solution has been established, it shall be triggered in the manner described below. Creation of HOV lanes shall not be accomplished by the addition of a new lane or lanes to the Turnpike.

D. Trigger Mechanisms. Preceding paragraphs of this section call for HOV measures to be undertaken in the northbound direction on Interstate 93 north of Boston, and additional HOV measures to be undertaken on the Massachusetts Turnpike, when triggered by traffic conditions. Those measures shall be undertaken for the construction and post-construction period after "triggers" calculated by the parties in the following manner have been reached. Each trigger shall consist of the difference, in minutes, between a pre-construction trip time and a construction period trip time. The specific pre-construction ("baseline") trip times and thresholds ("triggers") for implementing HOV measures, both during and after construction, shall be agreed to in writing by the

after construction, shall be agreed to in writing by the parties no later than April 30, 1991. Triggers shall represent a perceptible deterioration from baseline conditions. The collection of data necessary to the determination of baseline trip times shall be undertaken by December 31, 1991.

E. Performance Standards. Performance standards shall be set for HOV trips along the entire length of each corridor referred to in this paragraph, and for trips between all important origins and destinations along each corridor. Specific performance standards shall be agreed to in writing by the parties no later than April 30, 1991. The performance standards shall be set to provide both a travel-time advantage of a sufficient amount and an extremely high level of reliability to HOVs. For example, an appropriate goal for the standards may be to maintain all HOV trip times at no more than 80 percent of non-HOV average trip time or, where adequate HOV flow now exists, at no more than 105% of current HOV average trip time. Standards shall be set, in minutes, for trips along the following corridors wherever HOV lanes or other facilities or mechanisms have been established: (1) Interstate 95-Interstate 93 interchange north of Boston and the Charles River crossing (during the construction period) and Logan Airport entrance (during the post-construction period), by way of Interstate 93 and the Callahan and Sumner Tunnels; (2) Interstate 95-Interstate 90 interchange and South Station (during the construction period) and Logan Airport entrance (during the post-construction period), by way of Interstate 90; and (3) Weymouth to South Station (during the construction period) and Logan Airport entrance (during the post-construction period), by way of the Southeast Expressway and Interstate 90.

F. Continuous Attainment of Performance Standards. Performance of HOV facilities shall be monitored on a continuous basis to determine whether additional measures or changes in HOV operations are warranted. All appropriate measures, such as metering or changes in the HOV eligibility standard, shall be used on a continual basis to the full extent necessary to maintain compliance with performance standards. Even when vehicles with two occupants do not qualify for HOV eligibility, taxis with single passengers may qualify for HOV eligibility. Trip times will be measured as described on page 5 of the construction Mitigation Appendix to the FSEIR for the project or as subsequently agreed to in writing by the parties.

G. Promotion and Enforcement for HOV System. An

aggressive HOV promotion program shall be carried out by EOTC according to a plan to be completed and provided to the other parties by EOTC prior to commencement of reconstruction of the Central Artery. EOTC shall make every effort to reach a consensus with the other parties as to the adequacy of the plan within ninety days from the date when the plan is submitted to the other parties. The plan will be based on a comprehensive review by EOTC, to be summarized in a written report to the other parties no later than April 30, 1991, of techniques used to manage or promote HOV use in other locations throughout the United States and Canada. Effective enforcement of the HOV system shall be provided by EOTC according to a plan to be completed and provided to the other parties by EOTC no later than the date when highway construction work begins for the Artery/Tunnel Project. EOTC shall make every effort to reach a consensus with the other parties as to the adequacy of the enforcement plan prior to December 31, 1991. EOTC shall also ensure that HOV studies targeted at the various needs of Logan Airport passengers, patrons, and employees are conducted.

H. EOTC and MDPW shall use best efforts to ensure that HOV facilities, including special bus and/or taxi lanes, are incorporated into the design, construction and reconstruction of City of Boston streets. The parties agree to consult on the progress of the development of City street designs and shall encourage the adoption of HOV lane designs wherever feasible and appropriate.

9. Mitigation Oversight. The parties agree to meet no less frequently than once in each calendar quarter, from the date of this agreement onward, to review the implementation of the commitments in this agreement and of other mitigation commitments for the Artery/Tunnel Project pertaining to traffic and air quality. The parties expect that more frequent meetings will often be necessary for the parties to confer, review studies and plans, and enter into subsequent agreements as provided in this agreement. EOTC and MDPW agree that when CLF considers additional monitoring or technical data to be necessary to carry out this agreement, EOTC and MDPW shall arrange to obtain such data in a timely and impartial manner. Such data shall be obtained through the services of an independent person or entity with relevant expertise, at the expense of EOTC and/or MDPW, where a reasonable difference of opinion exists regarding the nature or extent of the data to be obtained, the manner of data collection, or other such matters.

10. Future Support. In recognition of the importance of the Commonwealth's long-term commitments in this agreement to the attainment of transportation and air quality improvements, and on

incorporated into the certificate of the Secretary of Environmental Affairs on the FSEIR and into the record of decision issued by FHWA, CLF agrees not to commence, maintain or participate in any action or legal proceeding challenging the adequacy of the environmental documentation for the Artery/Tunnel Project, including the Central Artery North Area Project. CLF specifically reserves the right to take any action necessary to enforce this Memorandum of Understanding. CLF agrees to support actively and in good faith the Artery/Tunnel Project and the implementation of the improvements and other measures undertaken pursuant to this agreement or pursuant to other mitigation commitments in the documents referred to in section 3 above, while reserving the right to recommend further improvements that can be made without delaying the project. CLF specifically agrees to pursue intervention, subject to the approval of its Board of Directors, on behalf of the Commonwealth upon request in a law suit or law suits brought against the Commonwealth in which a third party (other than a state or federal regulatory agency) challenges the adequacy of the environmental documentation for the Artery/Tunnel Project, for the purpose of asserting the public interest in the transportation and air quality improvements resulting from the Artery/Tunnel Project and the mitigation measures undertaken in connection with the project. CLF agrees to take all steps consistent with this agreement and to use its resources vigorously in carrying out the commitments

made in this paragraph.

Frederick P. Salvucci
Secretary of Transportation
and Construction

Jane F. Garvey
Commissioner of Public Works

Douglas I. Foy
Executive Director,
Conservation Law Foundation

Commonwealth of Massachusetts
Suffolk County

Sworn to and subscribed before me on this 19th day of December, 1990.

Carey B. Zimmerman, Notary Public
My commission expires January 10, 1997.

Appendix A

Project	Year of Completion
Commuter Rail	
Old Colony Line Extension	1995
Ipswich Line Extension to Newburyport	1993
Framingham Line Extension to Worcester	1995
Lynn Central Square Station and Parking Garage	1991
North Station High Platforms New Tracks	1991
South Station Track 12	1993
Rapid Transit	
South Station Access to Red Line	1991
Blue Line Connection from Bowdoin Station to Red Line at Charles Station	2010
Blue Line Platform Lengthening and Modernization	1997
Green Line Extension to Ball Square/ Tufts University	2010
Green Line Arborway Restoration	1996
Bus	
South Station Bus Terminal	1993
Lynn Transit Station Bus Terminal	1991
South Boston Piers Electric Bus Service	2000
Park & Ride	
Addition of 10,000 spaces systemwide, outside of Boston	1995
Addition of a further 10,000 spaces systemwide, outside of Boston	1998